

“SERVING INDUSTRY”



Inland Technology

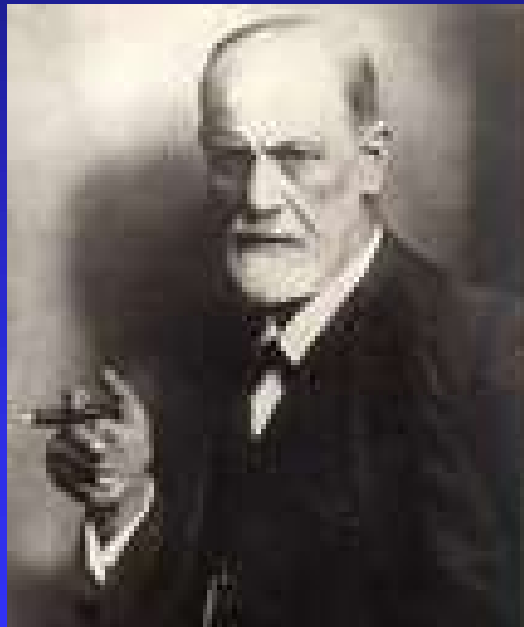
Pollution Prevention By Design

Traditionally, environmentally friendly and cost effective have been opposite terms.



**With environmental friendly and cost effective
on opposite balances**

“The greatest impediment to successful efforts is not in the realm of chemistry or research, but psychology!”



▶ **Here's how...**

- 1. Create a list:**
- 2. Orient the workers and supervisors:**
- 3. Identify and describe:**
- 4. Examine all the upstream requirements:**

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- 5. Examine all the downstream requirements:**
 - 6. Identify substitution candidates:**
 - 7. Evaluate the candidate materials:**
 - 8. Conduct off-line tests:**
 - 9. Train Employees:**

10. Implement:

11. Evaluate:

“How do I Make This Cost Effective?”



Case Study #1

- ▶ Client: US Air Force, Eglin Air Force Base, Florida
- ▶ Project: Replace the use of MEK for paint equipment cleanup with a solvent that would be Non-VOC, Non-HAP, Non-Ozone Depleting, and Non-EPA 17, Not listed under SARA Title III, Sections 302 or 313, Not listed under CERCLA



EGLIN AFB APPLIES ALTERNATIVE SEARCH METHOD

New alternative material for paint equipment tested, and training for use implemented after evaluation of 14 months.

After an assessment period of 14 months, the new technology at Eglin AFB showed these results:

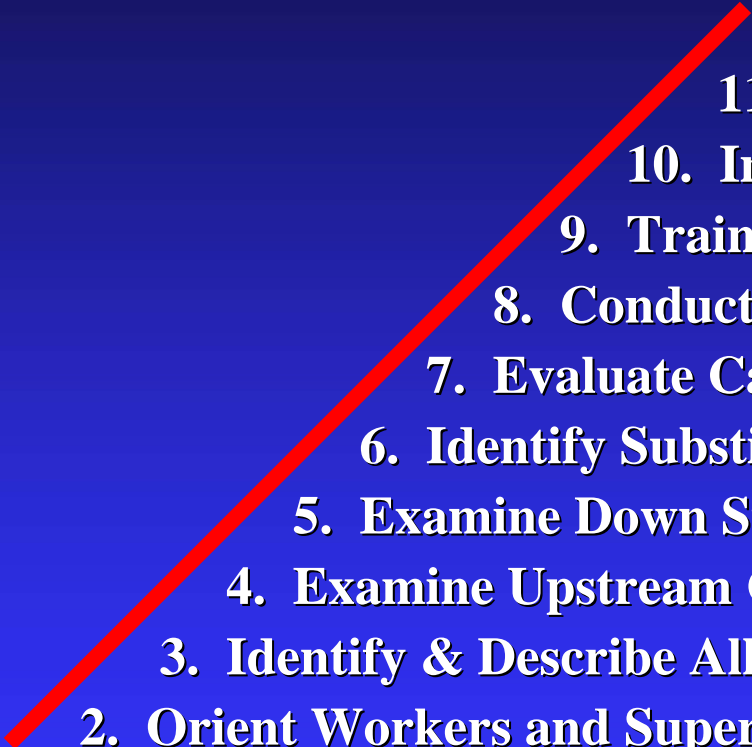
The shop now uses no MEK, and as a consequence the paint shop emits zero HAP's and VOC's from the cleaning process.

Additionally, the shop generates only 30 gallons (or 240 pounds) of hazardous waste per year from the cleaning of painting equipment.

Perhaps the most startling outcome is that the initial charge of 15 gallons of the alternative cleaner has lasted over one year.

This is comparable chemical purchase of \$723.25 instead of \$6,000.00. This is in addition to a volumetric reduction of hazardous waste greater than 27,000 pounds.

STEPS FOR SUCCESSFUL SOLVENT SUBSTITUTION

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- 1. Identify Target Solvent.**
 - 2. Orient Workers and Supervisors**
 - 3. Identify & Describe All Processes Using Target Solvent**
 - 4. Examine Upstream Conditions**
 - 5. Examine Down Stream Candidates**
 - 6. Identify Substitution Candidates**
 - 7. Evaluate Candidates**
 - 8. Conduct Off-Line-Tests**
 - 9. Train Employees**
 - 10. Implement**
 - 11. Educate**

REACH Questions to consider:

Do you have an inventory, including screening level toxicity data on the components of the chemical product?

Have you contacted your European importer about REACH requirements?

Do you know if the product contains any chemicals of high concern?

Do you have processes in place to assess risks of alternatives?